ABSTRACT OF THE DISCLOSURE

The disclosure relates to a device for comparing two words, N and P, of n bits each. The device includes at least one comparator block comprising n basic comparator blocks which can each be used to compare bits Ni and Pi of digit place i of words N and P, whereby 0=i=n-1. Moreover, each basic comparator block comprises: a first sub-block which can be used to generate a first signal indicating whether or not bits Ni and Pi are equal, said signal being generated at the output of the sub-block forming a first output (OUT_XORi) of the basic comparator block; a second sub-block which can be used to generate a second signal indicating which enables the second signal to pass to a second output (SOUTi) of the basic comparator block if the first signal indicates that bits Ni and Pi are not equal and which, in the opposite case, enables the second signal to be blocked. The comparator block also comprises: means for generating a third signal at a first output (OUT_XOR4_b) of the comparator block, indicating that numbers N and P are equal if the n first signals indicate same; and first selective passage means which can be used selectively to connect the second output (SOUTi) of a basic comparator block to a second output (OUT_COMP4) of the comparator block, whereby said basic comparator block, from among the basic comparator blocks having a second signal at the output thereof, processes the most significant bits. The signal present at the second output of the comparator block indicates which of the numbers, N or P, is greater.